

Ion-plasma nitriding of machines and tools parts instrumental steels

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Abstract

Here introduced features of formation diffusion bond during ion nitriding in glow discharge plasma in gaseous mediums (mixture of nitrogen and argon). It is shown, that argon existing in saturated medium changes the nitriding process kinetics and the phase composition of the outer zone. Here presented investigation results on ion-plasma nitriding of instrumental steels, focused on microstructure and tool areas phase composition change, operating in most difficult conditions.

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